

FLOOD-TRACKING CHART, FLINT RIVER BASIN, GEORGIA

Brian L. Cochran¹, Brian E. McCallum², Timothy C. Stamey³, and Caryl J. Wipperfurth⁴

AUTHORS: ¹Civil Engineer, ²Assistant District Chief, ³Hydrologist, ⁴Cartographer, U.S. Geological Survey, 3039 Amwiler Road, Suite 130, Peachtree Business Center, Atlanta, Georgia 30360-2824.

REFERENCE: *Proceedings of the 2003 Georgia Water Resources Conference*, held April 23–24, 2003, at the University of Georgia. Kathryn J. Hatcher, editor, Institute of Ecology, The University of Georgia, Athens, Georgia.

Abstract. The U.S. Geological Survey (USGS) published the first release of the Flood-Tracking Chart for the Flint River Basin (USGS Open-File Report 01-325) (shown in Figure 1) in December of 2001. The Flood-Tracking Chart accompanies the USGS real-time hydrologic data to provide the public with an easy method to track and compare floods in the Flint River Basin. The Flood-Tracking Chart summarizes historical flood events at USGS real-time streamflow gaging stations to help maintain public awareness of the hydrologic conditions in the Flint River Basin.

The Flood-Tracking Chart is a brochure-style paper copy, as well as a recently developed interactive web version. The chart is intended for emergency management officials, who make decisions on road closures and evacuations, as well as property owners living within waters reach in the Flint River Basin. The function of the chart is to provide flood peaks in summary fashion in order to compare current river levels with flood peaks from each gaging station's historical data. It easily makes pertinent flood data available to citizens and officials within the Flint River Basin and allows them to make an informed decision regarding public safety. Also, converting river stage (water-surface elevation referred to some arbitrary gage datum) to elevation above sea level allows the resident to monitor when property of a known elevation will be threatened by rising waters.

A select number of gages are located in the chart on a basin map, each is depicted with the following information (shown in Figures 2 and 3): five flood peaks listed by year of occurrence and peak stage; a scale to record current stages above flood stage; a line indicating flood stage for all National Weather Service (NWS) gages, which are NWS Forecast Points; space to record NWS forecasted date and time for a forecasted flood crest; gaging station information (site name, number, and period of time for which flood data has been recorded); and a conversion factor for converting stage to elevation above sea level. The chart also provides information to other sources of flood-related information and web links. In the online version of the chart, current river levels are displayed on a scale next to the five historic

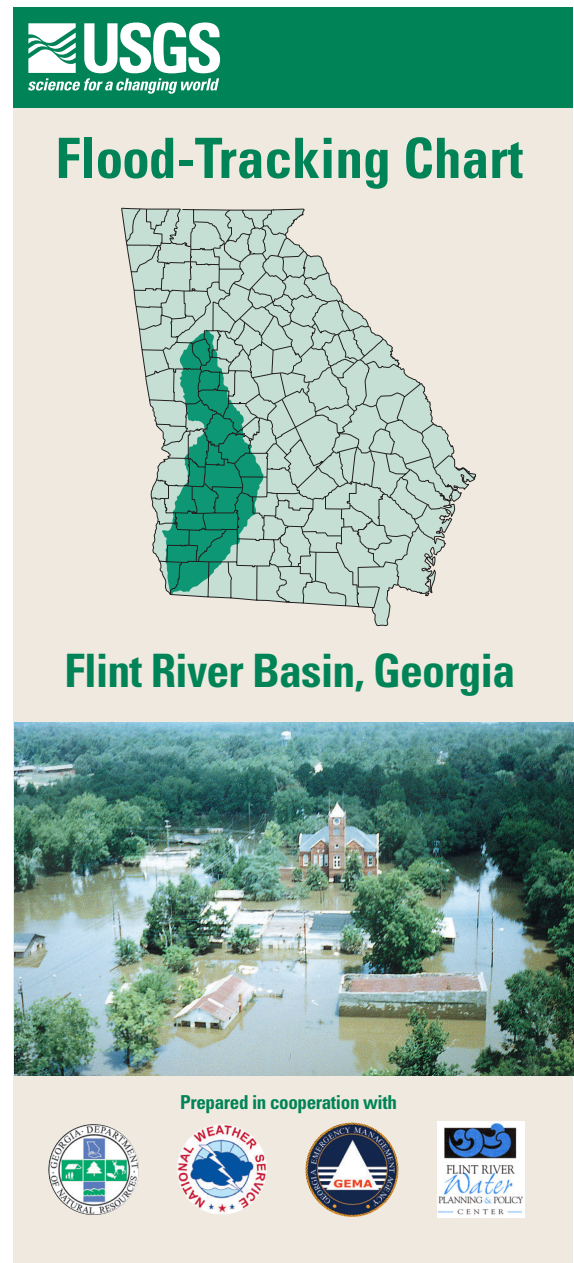


Figure 1. Front cover of the Flint River Basin flood-tracking chart.

peaks of record; this scale is based on the current hydrologic conditions, which is updated on the Internet every 4 hours in most cases. Other graphical annual flood data is included for each of the gages selected for use in the chart in the online version. Because of online capabilities, this version of the chart proves to be more detailed in providing more specific gaging station information, along with its updated stage data for comparison with historical floods.

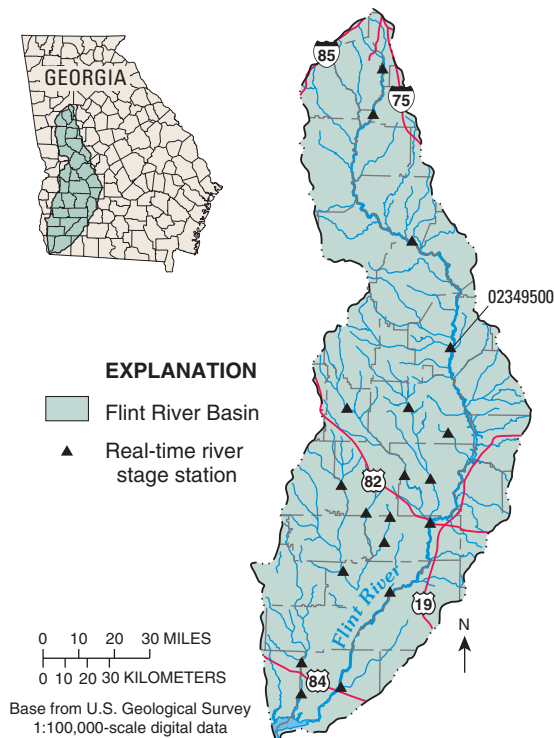


Figure 2. Flint River Basin map.

The USGS—in cooperation with other Federal, State, and local agencies—operates the Flood Monitoring System, aimed at making flood data accessible to the public. The chart is a tool organized to provide sources of emergency flood data for comparison and basic information relating to rising waters and the threat of danger to life and property within the Flint River Basin.

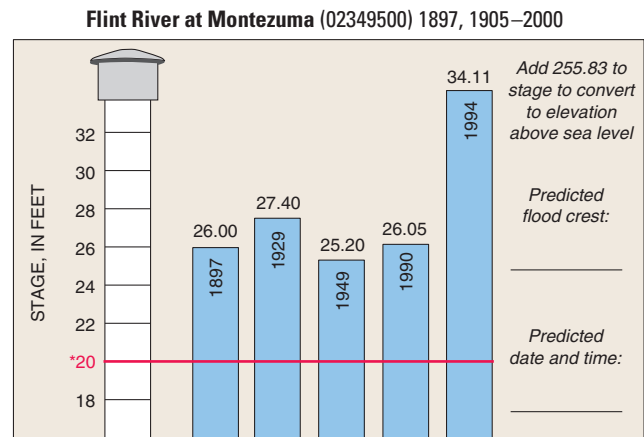


Figure 3. Gaging station depiction (see Figure 2 for location).